

1
3. (Twice Amended) A method of performing calculations in a calculator having an electronic input surface, [a stylus for tracing across the electronic input surface,] an electronic monitor, and a processing circuit coupled to the electronic input surface and the electronic monitor, the method comprising the steps of:

(a) recording movements of [the] a [stylus] pointing element in the processing circuit, as the [stylus] pointing element is traced across the electronic input surface;

B¹²
(b) recognizing the recorded movements of the [stylus] pointing element as characters in the processing circuit;

(c) converting the characters into a first mathematical expression [s] comprised of operands and operators in the processing circuit;

(d) displaying the first mathematical expression on the electronic monitor [so that all of the operands and operators are simultaneously displayed thereon];

(e) performing calculations indicated by the displayed first mathematical expressions in the processing circuit; [and]

(f) displaying a result of the performed calculations on the electronic monitor; and

(g) logically linking the first mathematical expression to a second mathematical expression inscribed on the electronic input surface.

¹⁰
~~16~~. (Amended) The invention as set forth in claim ¹/~~1~~ above,
B¹³ further comprising the step of accepting corrections in the
mathematical expressions traced by the [stylus] pointing
element in the electronic input surface.

¹²
~~18~~. (Amended) The invention as set forth in claim [17] ¹/~~1~~
above, wherein the first and second mathematical expressions are
linked in response to their proximity to one another on the
electronic input surface.

¹³
~~19~~. (Amended) The invention as set forth in claim [17] ¹/~~1~~
B¹⁴ above, wherein the first and second mathematical expressions are
linked in response to a user tracing a linking operator on the
electronic input surface.

¹⁴
~~20~~. (Amended) The invention as set forth in claim ¹³/~~19~~ above,
wherein the linking operator is an arrow having a tail proximal
[a] the first [operand or] mathematical expression and a head
proximal [a] the second [operator or] mathematical
expression.

¹⁶
~~22~~. (Amended) The invention as set forth in claim ¹⁴/~~20~~ above,
B¹⁵ wherein the logically linking step further comprises [ing] the
step of re-computing the second mathematical expression when the
first mathematical expression is altered on the electronic input
surface.

¹⁷
~~23~~. (Twice Amended) The invention as set forth in claim
[17] ¹~~2~~ above, wherein the logically linking step further
comprises [ing] the step of re-computing [at least two] the
first and second mathematical expressions logically linked
together, thereby incorporating a result of [a] the first
[calculation] mathematical expression into [a] the second
[calculation] mathematical expression.

¹⁸
~~24~~. (Twice Amended) The invention as set forth in claim
15 [17] ¹~~2~~ above, wherein the logically linking step further
B comprises [ing] the step of re-computing the first and second
mathematical expressions logically linked together, wherein the
first and second mathematical expressions are on separate pages
displayed on [an] the electronic monitor, thereby incorporating ✓
[the] a result of the first mathematical expression into the
second mathematical expression.

¹⁹
~~25~~. (Twice Amended) The invention as set forth in claim
[17] ¹~~2~~ above, wherein the logically linking step further
comprises [ing] the step of re-computing the first and second
mathematical expressions logically connected together, wherein
the first and second mathematical expressions are in separate
applications executed by the processing circuit, thereby
incorporating [the] a result of the first mathematical
expression into the second mathematical expression.

²⁰
~~26~~. (Amended) The invention as set forth in claim ¹/₃ above, further comprising the step of accepting marks traced by the [stylus] pointing element on the electronic input surface to annotate and label the recorded movements.

²¹
~~27~~. (Amended) The invention as set forth in claim ¹/₃ above, further comprising the step of accepting insertions in the mathematical expressions traced by the [stylus] pointing element on the electronic input surface.

B¹⁵
²²
~~28~~. (Amended) The invention as set forth in claim ¹/₃ above, further comprising the step of accepting deletions in the mathematical expressions traced by the [stylus] pointing element on the electronic input surface.

²³
~~29~~. (Amended) The invention as set forth in claim ¹/₃ above, further comprising the step of accepting erasures in the mathematical expressions traced by the [stylus] pointing element on the electronic input surface.

24

~~53~~. (New) A calculator having an electronic input surface, an electronic monitor, and a processing circuit coupled to the electronic input surface and the electronic monitor, comprising:

(a) means for recording movements of a pointing element in the processing circuit, as the pointing element is traced across the electronic input surface;

(b) means for recognizing the recorded movements of the pointing element as characters in the processing circuit;

15
B (c) means for converting the characters into a first mathematical expression comprised of operands and operators in the processing circuit;

(d) means for displaying the first mathematical expression on the electronic monitor;

(e) means for performing calculations indicated by the displayed first mathematical expression in the processing circuit;

(f) means for displaying a result of the performed calculations on the electronic monitor; and

(g) means for logically linking the first mathematical expression to a second mathematical expression inscribed on the electronic input surface.

25

~~54~~. (New) The invention as set forth in claim ²⁴~~53~~, wherein the electronic monitor is the electronic input surface.

²⁴
~~55~~. (New) The invention as set forth in claim ²⁴~~53~~, wherein
the operands comprise symbols.

²⁷
~~56~~. (New) The invention as set forth in claim ²⁴~~53~~, wherein
the operands comprise digits.

²⁸
~~57~~. (New) The invention as set forth in claim ²⁷~~56~~ above,
further comprising means for recognizing numbers from the
relative placement of the digits, so that when the digits are
traced horizontally in close proximity to one another on the
electronic input surface, they are considered to be a single
number.

²⁹
~~58~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
further comprising means for recognizing mathematical expressions
traced horizontally and vertically on the electronic input
surface.

³⁰
~~59~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
further comprising means for computing a result for the
calculations when the user traces a result operator on the
electronic input surface.

³¹
~~60~~. (New) The invention as set forth in claim ³⁰~~59~~ above,
wherein the result operator is an equal sign in a horizontal
mathematical expression.

³²
~~61~~. (New) The invention as set forth in claim ³⁰~~59~~ above,
wherein the result operator is a result line in a vertical
mathematical expression.

³³
~~62~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
further comprising means for animating expressions on the
electronic input surface as they are being calculated.

³⁴
~~63~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
further comprising means for accepting corrections in the
mathematical expressions traced by the pointing element in the
electronic input surface.

³⁵
~~64~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
wherein the first and second mathematical expressions are linked
in response to their proximity to one another on the electronic
input surface.

³⁶
~~65~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
wherein the first and second mathematical expressions are linked
in response to a user tracing a linking operator on the
electronic input surface.

³⁷
~~36~~. (New) The invention as set forth in claim ³⁶~~35~~ above,
wherein the linking operator is an arrow having a tail proximal
the first mathematical expression and a head proximal the second
mathematical expression.

³⁸
~~37~~. (New) The invention as set forth in claim ³⁷~~36~~ above,
wherein a result from the first mathematical expression is an
operand in the second mathematical expression.

³⁹
~~38~~. (New) The invention as set forth in claim ³⁷~~36~~ above,
wherein the means for logically linking further comprises means
for re-computing the second mathematical expression when the
first mathematical expression is altered on the electronic input
surface.

⁴⁰
~~39~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
wherein the means for logically linking further comprises means
for re-computing the first and second mathematical expressions
logically linked together, thereby incorporating a result of the
first mathematical expression into the second mathematical
expression.

⁴¹
~~70~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
wherein the means for logically linking further comprises means
for re-computing the first and second mathematical expressions
logically linked together, wherein the first and second
mathematical expressions are on separate pages displayed on an
electronic monitor, thereby incorporating a result of the first
mathematical expression into the second mathematical expression.

⁴²
~~71~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
wherein the means for logically linking further comprises means
for re-computing the first and second mathematical expressions
logically connected together, wherein the first and second
mathematical expressions are in separate applications executed by
the processing circuit, thereby incorporating a result of the
first mathematical expression into the second mathematical
expression.

⁴³
~~72~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
further comprising means for accepting marks traced by the
pointing element on the electronic input surface to annotate and
label the recorded movements.

⁴⁴
~~73~~. (New) The invention as set forth in claim ²⁴~~53~~ above,
further comprising means for accepting insertions in the
mathematical expressions traced by the pointing element on the
electronic input surface.